

the anterior margin raised and widely emarginate, nearly half as wide again as the posterior and lateral margins. Scutellum short and transverse, almost smooth, much narrower than the pronotum. Median segment shining and almost smooth, broadened posteriorly, the dorsal surface only about one-third of the length of the pronotum, obliquely truncate posteriorly, the surface of the truncation raised along the median line. Abdomen shining and sparsely punctured, much broader than the thorax, the basal segment with a patch of long cinereous hairs in the middle; second segment with nine strong transverse carinæ, higher at the apex than at the base; pygidium narrow and transversely striated at the base, sharply narrowed before the base of the almost vertical posterior truncation, the surface of which is twice as long as broad, smooth, the dorsal plate much shorter than the ventral, with a notch on each side at the base, the ventral plate emarginate at the apex and serrate at the sides. Fifth ventral segment longitudinally striated. Intermediate tibiæ broad and strongly spinose.

Hab. Aru (*Elguier*). Sent by Mr. Froggatt.

This belongs to the group of *T. serriger*, Sharp, and is nearest to *T. celebensis*, Turn., from which the male differs in the sparser puncturation, in which it approaches more closely to *T. olivaceus*, Turn. From both of these species it differs in the truncation of the hypopygium. The female differs from *calvus*, Turn., in the narrower pygidium, the narrower raised median space on the front, and in the shape of the scape, which is curved, not elbowed as in *calvus*; the sculpture is also different. The raised frontal area is also narrower than in *celebensis*, Turn., and with a less strongly marked median carina.

LXIV.—*Brief Diagnoses of Eight new Petalia, with a List of the known forms of the Genus.* By KNUD ANDERSEN.

Petalia tragata, sp. n.

As *P. javanica* (p_1 large), but free portion of tragus linguulate ("tongue-shaped"), *i. e.* inner as well as outer margin passing in a smoothly rounded curve into upper margin (in *P. javanica* corresponding portion of tragus semilunate, *i. e.* inner margin joining upper in a sharp angle); skull a little heavier, premolars and molars conspicuously larger. Skull

of type (an *immature*, though probably nearly full-grown, specimen), condylo-canine length 19.2 mm., against 17.8–19 in twenty-three fully adult skulls of *javanica*, c-m³ (crowns) 8.2, against 7.2–7.8 in twenty-six adult *javanica*; external dimensions probably very nearly as in *P. javanica*.

Type, ♀ imm. (alc.), Bidi Caves, Sarawak, presented by Cecil J. Brooks, Esq., B.M. 3. 3. 31. 1. The range of this form extends to the Malay Peninsula (♀ juv., Biserat, B.M. 3. 2. 6. 85).

Petalia nana, sp. n.

Allied to *P. arge* (p₄ large), but considerably smaller, and with proportionately much smaller ears (tragus not differing in shape, being lingulate as in *arge*). Forearm of type 34 mm. (39.5–45 in ten adult *arge*), third metacarpal 25.7 (30.5–34.2), tibia 14.5 (20–23.7), ear from base of inner margin 15.5 (23–26.5), maxillary tooth-row (c-m³, crowns) 5.7 (6.8–7.3).

Type, ♂ ad. (alc.), Benito R., French Congo, collected by Mr. G. L. Bates, B.M. 0. 2. 5. 46.

This is the smallest known form of the genus.

Petalia major, sp. n.

Similar to *P. arge* (p₄ large, tragus lingulate), but easily distinguished by its conspicuously larger size, being about equal in dimensions to *P. ethiopica luteola*. Forearm of type 49 mm. (39.5–45 in ten adult *arge*); skull, total length 22.2 (19.5–20.2), condyle to front of canine 19.7 (16.8–17.7), maxillary tooth-row 7.8 (6.8–7.3).

Type, ♀ ad. (alc.), Ja R., Cameroons, 23 Jan., 1906, collected by Mr. G. L. Bates, B.M. 9. 10. 2. 49.

Petalia aurita, sp. n.

Dentition (incisors and p₄), tragus, and external dimensions as in *P. hispida*, but ears much longer, skull larger, tooth-rows longer. Forearm of type 43 mm. (in forty-seven adult *P. hispida* 37.2–43), ear from base of inner margin 21.5 (16.5–18.7); skull, total length 18.7 (in thirty-two adult *hispida* 16.5–17.8), condyle to front of canine 16.1 (14–15.3), c-m³ (crowns) 6.5 (5.5–6.1).

Type, ♀ ad. (alc.), Kiliñ, British East Africa, collected and presented by G. D. Trevor-Roper, Esq., B.M. 89. 1. 11. 1. Other specimens from Maungu, B.E.A., and Burao, Somaliland.

Petalia thebaica adana, subsp. n.

As *P. th. thebaica* (Egypt), but teeth larger, colour of fur paler. c-m³ (crowns) in nine skulls (type and topotypes) 6·8-7·1 mm., as against 6·5-6·8 in four skulls from Egypt; forearm (type and twenty topotypes) 42·5-46·5 (nine *th. thebaica*, 41-45). Colour of fur of upperside pale drab, in *th. thebaica* drab-slate.

Type, ♀ ad. (skin), Myba, nr. Aden, 17 Aug., 1899, collected by Mr. W. Dodson, B.M. 99. 11. 6. 18.

Petalia damarensis brockmani, subsp. n.

Probably the north-eastern representative of *P. d. damarensis*, from which it is distinguishable only by the larger average size of the skull. Total length of skull (fourteen specimens) 21-21·5 mm. (20-21·2 in six *d. damarensis*), total length of lower jaw 13·7-14·2 (12·7-13·7), maxillary tooth-row (crowns) 7·2-7·7 (7-7·5). Forearm 47-51, ear from base of inner margin 29-31·5 mm.

Type, ♀ ad. (skin), Upper Sheikh, British Somaliland, 4300', 11 Jan., 1910, collected and presented by Dr. R. E. Drake-Brockman, B.M. 10. 3. 27. 4. The range of this form is known to extend to Erythrea. *P. d. damarensis* occurs in Damaraland and Namaqualand, through the Lake Ngami region, eastward to Tette.

Note.—*P. d. brockmani* should not be confused with the smaller, shorter-eared *P. revoili*, which belongs to the same section of the genus and occurs in the same region (forearm 41-45, ear 26-26·5, maxillary tooth-row 6·5-6·8 mm.).

Petalia damarensis media, subsp. n.

Probably the Abyssinian representative of the foregoing form, from which it differs by its conspicuously smaller size: total length of skull of type 20·6 mm., of lower jaw 13, maxillary tooth-row 6·8, forearm 45·5, ear from base of inner margin 29.

Type, ad. (skin), Harar, Abyssinia, 19 Jan., 1912, collected by Hr. G. Kristensen, presented by the Hon. N. C. Rothschild, B.M. 12. 2. 28. 1.

Petalia gambiensis, sp. n.

Tragus of the *P. thebaica* type, but species differing from any other form of the *thebaica* section by its remarkably small size. Forearm (type and topotype) 39-40·8 mm.,

third metacarpal 29, ear from base of inner margin 23-23.5, skull (total length) 18.5, maxillary tooth-row (crowns) 6.1-6.2.

Type, ad. (skin), Dialocote, French Gambia, 7 March, 1910, presented by G. Fenwick Owen, Esq., B.M. 11. 6. 10. 10.

Note.—Gambia is inhabited by two other species of *Petalia*, *P. hispida* and *P. macrotis*.

The following nineteen forms of *Petalia* are known to the writer:—

- I. *P. javanica* group:— p_1 large, equal in height to cusp 1 of m_1 ; tragus lingulate or semilunate.
 - A. Indo-Malayan species.
 1. *P. javanica*, E. Geoff.—Java; Timor.
 2. *P. tragata*, K. A.—Borneo; Malay Peninsula.
 - B. Ethiopian species.
 3. *P. arge*, Thos.*—Semliki R.; Ituri Forest; Benito R., French Congo; Fernando Po; Cameroons (Efulen; R. Ja); Old Calabar; Oban, S. Nigeria.
 4. *P. nana*, K. A.—Benito R., French Congo.
 5. *P. major*, K. A.—Cameroons (R. Ja).
- II. *P. hispida* group:— p_4 small; upper incisors trid; tragus falciform or semilunate. Ethiopian.
 6. *P. hispida*, Schreber.—From Egypt and Soudan, through British East Africa and Uganda, south to Ft. Johnston (Nyasa) and Upper Shiré R., west to Angola and the Guinea coast, as far as Gambia.
 7. *P. aurita*, K. A.—British East Africa and Somaliland.
 8. *P. grandis*, Pet.—From Zanzibar, west to French Congo and Old Calabar.
- III. *P. aethiopica* group:— p_4 small; upper incisors bifid; tragus semilunate (or nearly so). Ethiopian.
 9. *P. aethiopica aethiopica*, Dobson.—Kordofan and Shendy (Upper Nile).
 10. *P. aethiopica luteola*, Thos.†—Zanzibar; British East Africa; Uganda; west to Loanda (Pungo Andongo and Cassualalla).
 11. *P. macrotis* ‡, Dobson.—The Guinea coast representative of *P. aethiopica*: from Nigeria to Gambia.
- IV. *P. thebaica* group:— p_4 small; upper incisors bifid; tragus pyriform (free portion narrowest at base, its outer and inner margins evenly convex). Ethiopian.
 12. *P. thebaica adana*, K. A.—Aden.
 13. *P. thebaica thebaica*, E. Geoff.—Egypt (incl. Sinai).

* Ann. & Mag. Nat. Hist. (7) xii. p. 633 (Dec. 1903).

† Ann. & Mag. Nat. Hist. (7) viii. p. 30 (July 1901).

‡ *Nycteris geoffroyi*, Desmarest (Mamm. p. 127; 1820), may be an earlier name of this species, but, unless the type should have been preserved, the identification appears rather doubtful.

14. *P. revoldi*, Robin*.—Erythrea; Somaliland; British East Africa; Uganda.
15. *P. capensis*, Smith.—From Zambesia, south to Transvaal, Zululand, Natal, and Pondoland, west to Mossamedes and Benguela.
16. *P. damarensis*, Pet.—Damaraland; Namaqualand; Lake Ngami; Tette.
17. *P. d. brockmani*, K. A.—Erythrea; Somaliland.
18. *P. d. media*, K. A.—Abyssinia (Harar).
19. *P. gambiensis*, K. A.—Gambia.

LXV.—On *Specimens of Cephalodiscus nigrescens supposed to have been dredged in 1841 or 1842.* By W. G. RIDEWOOD.

THE genus *Cephalodiscus* was founded upon material dredged by the 'Challenger' in 1876 from a single locality (Station 311) in the Straits of Magellan. The full report upon that material † was drawn up by Prof. W. C. McIntosh and Dr. S. F. Harmer, and published in 1887 (5), the species being described as *Cephalodiscus dodecalophus*.

Since then twelve new species of *Cephalodiscus* have been described:—*C. gracilis*, *C. sibogæ*, and *C. levinseni*, by Harmer (3); *C. nigrescens*, by Lankester (4); *C. gilchristi* and *C. hodgsoni*, by Ridewood (6 and 7); *C. æquatus*, *C. inæquatus*, *C. solidus*, *C. densus*, and *C. rarus*, by Andersson (1); and *C. indicus*, by Schepotieff (9).

Another species, somewhat resembling the *C. rarus* of Andersson, is stated to have been obtained on the second French Antarctic Expedition. The name given to it by Gravier (2) is *C. anderssoni*; but since the author does not enumerate its distinguishing features, the species cannot as yet be regarded as more than a *nomen nudum*.

Yet another species, of strongly marked facies, was obtained by the 'Scotia' during the Scottish National Antarctic Expedition, when at Station 346 (lat. 54° 25' S., long. 57° 39' W., depth 56 fathoms), in December 1903.

* Bull. Soc. Philom. (7) v. p. 90 (1881). Name perhaps antedated by Henglin's *Nycterus labiata* (N. Act. C. Leop.-Car. xxix. p. 5; 1861), the type of which I have not yet seen.

† The full report was preceded by a preliminary notice in the 'Annals and Magazine of Natural History,' (5) x. 1882, pp. 337-348, and another in the Report of the British Association meeting of 1882 (published 1883, pp. 596-597). The first published figures of *Cephalodiscus*, made from drawings supplied by Prof. McIntosh, appeared in E. R. Lankester's article "Polyzoa" in the 'Encyclopædia Britannica,' ed. 9, xix. 1885, figs. 8-10.